

U.S. Patent Application Serial No. **10/767,731**
Response filed April 11, 2006
Reply to OA dated December 7, 2005

AMENDMENT TO THE DRAWINGS:

The attached new sheet of a drawing includes Fig. 1. This sheet, which includes Fig. 1 does not introduce new matter.

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REMARKS

Claims 1-18 are presented for examination in this case.

Claims 1-18 are rejected under 35 USC 103(a) as being unpatentable over Emoto, et al., (U.S. Patent No. 6,756,175) in view of Matsuoka, et al., (U.S. Patent No. 6,436,599) and Fujino, et al. (U.S. Patent No. 6,596,453).

Emoto teaches a method of fixing toner in which the weight-average particle diameter of the toner particles is 3-10 μ m, and the average circle degree of the toner particles is 0.96 or more. Regarding a location parameter, i.e., the wax dispersion distribution in the toner particles, **Emoto** discloses that 3 or more wax particles are present in each toner particle, and at least 70% or more of those wax particles are 0.1 to 2 μ m in particle diameter.

Matsuoka discloses toner particles having an internally added releasing agent (e.g., wax). **Matusoka** discloses that the dispersion diameter of the parting agent is 0.1 to 2 μ m, and the ratio of the parting agent present in "a layer extending from the top to a depth of 0.1 μ m" is 1.0 to 10.0% of the total parting agent.

Fujino is cited for the disclosure of toner particles having a volume average particle diameter of 3 to 15 μ m, and 1 to 1.40 ratio (Dv/Dp) of the volume average particle diameter (Dv) to the number average particle diameter (Dp). Please note that **Fujino** is assigned to Zeon Corporation.

Emoto, Matsuoka, and Fujino, fail to render the claimed invention obvious because, in combination, they fail to teach or suggest toner particles having a particle diameter size that is a function of a volume average particle diameter; and a toner wherein an outermost portion of the island-shaped separate phase is present at a depth that is a function of particle diameter of each toner particle, as recited in claim 1. Specifically, in the present invention as recited in claim 1, **a toner has island-shaped separate phase having a particle diameter that is 0.6 to 1.2 times a volume average particle diameter of 3 to 10 μ m, and the island-shaped separate phase is located completely within a toner particle, below a surface of the toner particle.** In particular, the outermost portion of the island-shaped separate phase is present **under** the surface of a toner particle at a **depth of 0.01 to 0.15 times the toner particle diameter** of each toner particle (Fig. 1). In contrast to the claimed invention, as can be seen in Fig. 2, **Matsuoka** teaches that 1.0 to 10.0% of the total parting agent are present at a **depth of 0 to 0.1 μ m from the surface** of a toner particle, that is, **substantially at the surface** of the toner particle and not at a depth of 0.01 to 0.15 times the toner particle diameter of each toner particle.

Furthermore, **Emoto** discloses a toner having 1 to 15% THF insolubles. In contrast, in the present invention as recited in claim 5, a toner has a THF-**extractable** component content of 10 to 80% by weight, not 1 to 15% THF **insolubles**. The THF-insolubles content can be calculated by subtracting the THF-extractable content from 100. In other words, in the present invention, the THF insolubles content is 20 to 80% by weight, an amount neither taught nor suggested by **Emoto**.

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Regarding an acid value of the claimed toner as recited in claim 7, the Office Action asserts that **Matsuoka** teaches the claimed acid value of 5mg/g KOH. However, the references fail to teach or suggest the claimed acid and amine values of a **toner** since **Matsuoka** and **Emoto** merely disclose acid and amine values of a **binding resin**, and **Emoto** merely discloses an acid value of a **parting agent**.

The references fail to render obvious the claimed invention as a whole because the references fail to teach or suggest a particle diameter size that is a function of a volume average particle diameter, and an outermost portion of an island-shaped separate phase present at a depth that is a function of particle diameter of each toner particle, as recited in claim 1, as opposed to at the surface of a toner particle; the claimed amount of the THF-extractable component as recited in claim 5; and the claimed acid and amine values of the toner as recited in claims 7-10.

It is respectfully requested that the rejection be reconsidered and withdrawn, and that all claims be held to be allowable over the art of record. Early and favorable consideration is earnestly solicited.

The applicant respectfully submits that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated **December 7, 2005**.

If, for any reason, it is felt that this application is not now in condition for allowance, the

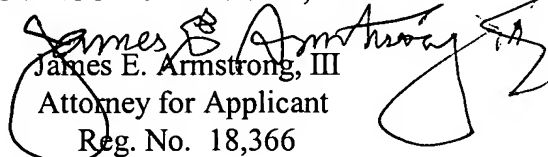
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Office Action is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures:

New Sheet of Drawing (Fig. 1)

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